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NEUROSES AMONG RETURNED SOLDIERS. TYPES AND INDICATIONS.*

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PSYCHONEUROTIC reactions resulting from warfare may be considered conveniently in two groups:—first, acute states developing at the front and presumably reactive in the main to the actualities of trench fighting, chief among which is of course the concussion syndrome; second, conditions observed in base hospitals or after the men have been invalided home, including persistent syndromes which began at the front and also those subsequently elaborated.

The present discussion concerns itself with the second group, comprising members of the C. E. F. who have been returned from France because of nervous disabilities. The principal types of such disabilities will be referred to briefly; and further some of the larger lessons of experience in dealing with them, which may be profitable not only for medical officers but quite as well for the public at home.

Let me say by way of preface that the data here made use of have been collected under the authority and direction of the Military Hospitals Commission of Canada,* who have pursued a policy of placing at the disposal of all rightful enquirers such information as they have accumulated, whether such information reflects achievements to be emulated or errors to be avoided.

When Canada was caught by the avalanche of war, totally unready as she was, there was but one thought,—to get the greatest number of men overseas in the shortest possible time. She was still laboring single-minded to that end when casualties began pouring back, and again she was hardly prepared.

If during six months after the war was brought to our own shores 400,000 American soldiers have been sent overseas, the United States has done, with respect to the supply of man-power, exactly what Canada did within six weeks after the call came from England in August, 1914. Canada could not sit, note-book in hand, for three years and watch and learn as we have learned at her expense. She has

* Paper read at the Symposium on Psychiatry and War held by the New York Psychiatrical Society, Dec. 5, 1917.

* With the reorganization of the Medical Services in Canada, in April, 1918, the Military Hospitals Commission, as originally created by Order-in-Council, ceased to exist and its work was divided. That part dealing with returned invalids not yet discharged from the service was taken over by the Army Medical Corps; the other branch, dealing with the disabilities of discharged men, and including vocational re-education, remained under the jurisdiction of the Commission—since called the Invalided Soldiers' Commission—which became a branch of the new department of Government then created, namely the Department of Soldiers' Civil Re-establishment.

learned at her own bitter cost, and we from this side of the border still go to enquire of her.

From the beginning of the war to November 1, 1917, approximately 30,000 Canadian soldiers were returned home from overseas, most of them medically unfit. About 3600 of these (12%) belong to the nervous and mental group, the composition of which is indicated in the following table:

NERVOUS AND MENTAL DISEASES AMONG RETURNED SOLDIERS OF THE C. E. F.

1.	Neuroses	50%
2.	Psychoses Defect states	18%
3.	Head injury	13%
4.	Epilepsy Epileptiform	8%
5.	Alcoholism Drug habit Undesirables	6%
6.	Neurological Miscellaneous	5%
		100%

Deferring for a moment discussion of group 1, it is necessary to comment briefly upon the remaining five groups.

Psychoses and Defect.—In this group the two conditions are taken together. The figures are necessarily compiled for the most part from medical boards, and perusal of these does not as a rule permit of distinction between the two types.

In this connection two highly important considerations suggest themselves. (1) The necessity for special psychiatric boards to deal from the start with nervous and mental cases. (2) The scarcely less urgent need of a uniform and if possible fool-proof nomenclature. When general boards sit for the examination of all types of disability and without a standardized and workable scheme for recording findings, all sorts of discrepancies are bound to occur. One M. O. looking for a physical basis for all disabilities will overlook various functional nervous disorders, while another of different temperament will unduly expand the diagnosis,—neurasthenia. Similarly, widely divergent mental conditions may come to be called by the same name, while similar conditions may be designated by the greatest variety of terms. It has fortunately been possible in the American organization to accord to these facts due recognition at the outset.*

Among mental diseases dementia praecox comes conspicuously first. Next, and also relatively numerous are the various grades of primary mental defect. Manic and depressive attacks appear to be relatively uncommon, the latter being the more frequent of the two Occasionally a benign stupor is met with.

According to our data *paresis* and allied conditions are rare in the Canadian Army. Out of the total of 30,000 returned men we found as follows:

Paresis (diagnosis established or probable)	31
Tabes (diagnosis established or probable)	25
Tabo-paresis	3
Cerebro-spinal lues	7
	66
Paresis suspects	23
Tabes suspects	2
	25

Unfortunately it has not yet been possible to check up all these cases which are scattered about Canada. A certain number of diagnostic errors of both sorts must be allowed for. They will perhaps balance each other.

All of the cases of established or probable paresis and tabes taken together make up about 1-5 of 1% of the total disabilities. Including the suspects, which will probably make the estimate reasonably large, we get only .3%.

So far as our evidence goes the incubation period is not shortened. In seventeen cases of paresis and tabes in which the records supplied dates, the average period between specific infection and appearance of symptoms was 13 to 14 years.

As might be expected a phase of trench neurosis may complicate practically any mental condition. With regard to paresis, initial errors in diagnosis have been made by regarding early cases at the front as neurasthenia, shell shock and occasionally epilepsy.

One case first attracted attention by his carefree recklessness and apparently fool-hardy exposure, utterly disregarding danger. Thus far we have met with but two other types who passed through the ordeal of the trenches without evidence of fear. Hypomanics, for example, may undertake with relish the most hazardous exploits, rushing in where angels and devils alike might reasonably fear to tread. On the other hand, the hebephrenic, though he does not start things or court danger, may remain placid and unmoved whilst death is striking all about him. We have had among our patients reac-

* The Surgeon-General of the United States Army has adopted the nomenclature approved by the American Medico-Psychological Association at its 1917 meeting.

tions such as these. It is true they are only occasional instances, but I have yet to hear of any such immunity to fear in a normal soldier.

Head Injury.—Group 3, being composed of traumatic cases in which nervous symptoms are as a rule, directly determined by the injury, might be omitted from a classification of strictly neurotic or psychotic states. For the sake of completeness it has been included.

The observation has become banal that typical war neuroses have no tendency to appear in association with severe injuries, even when those injuries involve the central nervous system. The reasons for this mutual exclusiveness have been widely recognized and discussed.[1]

The rule is, of course, not without exception, but the exceptions serve to verify the rule. It cannot be expected that bullet and shell will selectively strike only those of sound nervous constitution. In a number of cases of severe physical injury with associated neurosis the neuropathie habitus has been demonstrable. It is also to be noted that patients with trifling scalp wounds which medical boards set down as no cause for disability many times complain of the same symptoms as men with grave head injuries involving loss of portions of the skull. These subjective symptoms are not always easy to account for at once; for example, when a man with a scalp wound in the right parietal region complains of numbness in the right arm.

Epilepsy.—This is a difficult group to evaluate. There are three things to be said. In the first place, a certain number of epileptics are bound to get on the strength, no matter how careful the examination of recruits. Secondly, military service is notoriously prone to bring out latent spasmophilic tendencies. Thirdly, a considerable number of men invalided as epileptics are something else. Even cases accompanied by certificates to the effect that typical convulsions have been observed, not infrequently turn out to be functional neuroses. Occasionally the clue is furnished by an entry somewhere in a medical history sheet stating that a seizure lasted for a half hour or an hour. Rarely a spasm occurring at the front and to all intents and purposes epileptic, constitutes the first overt symptom of paresis.

Alcoholics, Undesirables.—The group is a somewhat heterogeneous and happily a small one. Undoubtedly practically all here included belong in the list of abnormal characters, although the available data do not encourage an attempt to carry through a differentiation of types.

With regard to alcohol it may be stated that this factor has played a very insignificant rôle as a cause of invalidism among Canadian soldiers sent home. Among slightly more than 24,000 returned men it was possible to find only 91 cases (.37%) in which alcohol was either a primary or secondary factor in the disability. This is not by any means saying that 91 is the total number of men who might be said to have drinking habits, or who might indeed upon occasion be found under the influence. If among round 25,000 soldiers there were less than a hundred who ever got drunk, the spirituous morality of the army would assuredly far excel anything known in civil life. The figure merely indicates approximately the number of cases in which alcoholism became a cause of unfitness for military service, or could be considered as a factor in the invaliding disability.

An inspection of these ninety-one cases is of interest. Habitual drinking previous to enlistment was noted in the histories of 84. The causes of the drink habit may be explained by some further figures. Sixty-five were cases of chronic mental disease or developmental defect; the mental disability in either case long antedating enlistment. Four others exhibited a neurotic constitution. Three were psychopaths. Two had organic nervous disease.

At least 12 of the 91 cases had been in hospitals for insane in earlier life. One had been discharged from the U. S. Army as an habitual alcoholic, and another had deserted from the same service. One had been discharged from the Imperial Army some years previously as a mental case.

Neurological, etc.—In this small group are included certain organic conditions such as multiple sclerosis, brain tumor, and tabes; as well as a few choreas, exophthalmic goitre cases with prominent nervous symptoms and certain obscure cases of D. A. H. Peripheral nerve injuries and lesions have not been taken into account in the present survey.

Functional Neuroses.—We revert now to the first group which is probably larger than all the others put together. The boundaries of this group are especially difficult to define but

[1] Salmon: War Neuroses. *The Military Surgeon*, December, 1917.

the estimate of 50% of the total nervous and mental disabilities is certainly conservative.

A neurotic reaction, more or less marked, is likely to be observed in a very considerable proportion of war disabilities, more conspicuously the fresher the cases are from the front. In the case of minor wounds or illnesses with recovery without directly resulting disability, an associated nervous reaction may become the actual cause of unfitness for further service. In other cases with symptoms referable to this or that organ, a medical board may not find it possible to determine whether the disability is an actual physiological derangement or a functional nervous reaction. Cases of these types recur by hundreds and contribute to the uncertainty of the boundaries and size of the group of functional neuroses.

In considering the symptomatology of the group, as a whole, and omitting discussion of transitory concussion syndromes and other possible acute states reactive to field conditions, we observe among returned men but two general types:

1. Neurasthenic States.
2. Hysteric States.

These two types present nothing particularly distinctive as compared with similar neuroses in civil life. We recognize in general that *hysteric* symptoms are likely to be of sensori-motor character; that they develop, as a rule, suddenly and spectacularly, and affect by preference the younger individuals and those who have seen short service at the front.

Neurasthenic conditions, on the other hand, more true to name, are likely to represent real nervous exhaustion developing gradually without striking phenomena, affecting all classes, especially the older men or veterans who have seen much service. The symptoms are of the more general somatic variety.

The neurasthenia problem is one by itself and one which is bound to demand increasing attention. Neurasthenia is the common diagnosis in the case of invalids with "no apparent disability." As the war wears on this diagnosis tends to multiply. In the earlier days the more dramatic phases of "shell shock" were dominant.

In the group which may be called the *somato-neuroses* we find the points of contact between nervous and physical disabilities; and in hurried medical boards it may be largely a question of the state of mind and feelings of the medical officer as to whether a case will be ticketed as neurasthenia or as gastro-intestinal disorder, D. A. H., myalgia or something else, according to the symptoms displayed.

Remembering the pathophilic tendencies of such a large proportion of mankind, it is not surprising that the phenomena of *subjective exaggeration* and *perseveration* should be enormously increased in the war neuroses. In minor injuries and disabilities, following infections or what not, original symptoms, such as pain, weakness, limitation of movement, etc., may continue simply as morbid habits long after their causes have entirely disappeared, in some cases apparently indefinitely if not treated.

INDIVIDUAL TYPES OF WAR NEUROSES.

The following characteristic examples may be briefly indicated.

CASE 1.—*Tremor-fixation.*—Young man of average mentality; machinist's apprentice. Age 20 on enlistment, August, 1915. He reached France one year later, August, 1916, and was invalided with "Shell Shock" the following month. By October he was in hospital in England, and reached Canada April, 1917.

His disability was then practically mono-symptomatic, consisting of rhythmic shaking tremor of right hand and forearm. There was no paralysis, muscular weakness or atrophy; no trophic disturbance. The patient did not, however, raise the extended arm above horizontal. The tremor was gradually growing less, sometimes almost completely subsiding, but readily aggravated by observation. Although in good physical health a rather definite ergophobic tendency was somewhat discouraging at first.

The circumstances of the casualty, as the invalid recalled them after the lapse of nearly a year, were as follows:

It was about eight o'clock of a very dark night. He was on guard in the trenches when a shell came over and fell, as it seemed to him, just below the parapet and exploded. He declared himself unable to remember anything immediately following. Although he could not state whether he was knocked unconscious, he knows that he sustained no physical injury. (As a matter of fact, patient was able to walk to the aid-post). A little later in the night he found himself in a dug-out dressing station

with an aching head and general ill feeling. The following morning he was lying in bed when the Medical Officer made rounds. He does not recall shaking or trembling up to this time. To the doctor's enquiry concerning his complaint, he replied that he was sick at the stomach and weak in the legs. The doctor asked him to get up and walk a little. He took a few steps and stretched out his right hand to grasp a post for support. Just then he noticed that his hand began to shake. This was the beginning, and from that moment the tremor has never ceased.

The patient remembers that a medical officer in England stated that the disability could be cured only by time.*

Other symptoms, such as headache, dizzy sensations, nervous irritability, hyperidrosis, emotionalism, terrorizing dreams, apprehensiveness, exaggerated startle-reflex, had largely subsided by the time the invalid reached Canada.

Case 2.—*Functional Gait Disorder.*—Youth of sub-normal intelligence. Freight-heaver. Age 22 on enlistment in September, 1915. He saw about ten weeks' service in France (between August and November, 1916), and according to his own account was twice, more or less, buried by shell explosions and his right leg injured. He describes unconvincingly various initial subjective symptoms of loss of sensation and muscular power.

Patient's record shows numerous hospital admissions in Canada, England and France. His medical sheet contained entries for measles, gastric catarrh and jaundice, myalgia, influenza and debility.

Record in France states, "He complained so much of pains in thighs, shins, between the shoulders, that he was sent to hospital for treatment, and in spite of every measure taken during the month of November he complained more and more, and was sent to England, December 4, 1916,"

He remained continuously under treatment in England until invalided to Canada, June, 1917. A medical board at Ramsgate, May 21, 1917, stated,—"Physical examination fails utterly to discover any pathological condition of the body. His mentality is lacking in the manly qualities. No stamina; nothing to work on or appeal to. He limps in a most absurd manner upon his right leg and leans heavily on his cane. Is willing to take all treatments prescribed in which he does not have to exert himself, but at gymnastic exercises he 'lies down' and they can do nothing with him. He has been treated with the utmost kindness and patience but nothing has been achieved beyond thoroughly convincing everyone that he is opposing all effort to bring him to normal functional activity. The patient has stated that he will not recover until he is returned to civilian life."

Casualty form states that on November 19, 1916, invalid was missing after action, but there is no record of any casualty. On December 2, admission to field hospital is recorded with diagnosis, "debility."

This man throughout has made the impression of subjectively exaggerated or factitious symptoms. On return to Canada his sole apparent disability was loss of function of the right knee. He maintained that he had no power whatever to fix this joint in walking. In consequence, at every step the right knee would give way until it almost touched the ground, the left leg dragged forward; and upon this, with the help of his cane, he would then rise again to the erect posture. In this very spectacular fashion, as the result of long practice, the invalid could get over the ground about as rapidly as the average person.

Before accusing this man of malingering, it should be realized that he is a moron (mental age approximately 9). He went to school until he was sixteen, at which time he says he was in the fifth grade, but never learned easily. All his schooling was in New York State, where he lived until the age of sixteen. The capital of New York State he gives as "Boston." He exhibits marked defects in logic and judgment and is hardly even aware when betrayed into self-contradictions. He recounts with great readiness the numerous varied treatments which his disability has successfully withstood; declares that he is incapable of working and that a total disability pension would be the only fair adjustment of his case.

This is the type of man who should have been excluded at the beginning on the ground of mental deficiency, although there were no abnormal physical findings. Because of his mental defect and lack of an adult sense of independence and responsibility he easily yielded

* All too often one hears from patients the stereotyped expression: "The doctor at ——— said it would take months, maybe years, to cure me." And these neurotic invalids we find faithfully fulfilling the alleged medical prophecy.

to every tendency to indisposition; appears to have been an habitual sick parader; rendered no effective military service; and his presence and influence were detrimental to his comrades.

CASE 3.—*Postural Disorder.*—Enlisted September, 1915, at the age of 22. Had worked at odd jobs, his last being that of hotel call boy. Had very little schooling. There is a history of some sort of nervous attack about five years ago. Served in France from May to October, 1916, principally in the ammunition column. In September he reports a close escape, his wagon being blown to pieces by a shell, although he was uninjured. In October he was blown up, striking his right thigh in his fall; then partly buried by a second explosion. According to the patient's account, there may have been partial or transitory lapses of consciousness. Six weeks later he was convalescing in an English hospital, his disability being described as "Contusion of the right knee." The report adds that "Unfortunately in addition to his physical injury he became exceedingly nervous, and from time to time has periods of excitement and restlessness, during which he will be unable to speak for a few minutes to an hour or two." (The distressing feature of the casualty was that at the time of the explosion he was standing beside his lieutenant, who was instantly killed, his head being blown from his body and falling near).

For several weeks in November and December splints were intermittently applied. Symptoms appeared to alternate between hip and knee, one joint being free and the other maintaining a slight flexion, and vice versa. In January, 1917, the patient was walking with crutch or canes, and in March without support. There was now, however, fixed apparent shortening of the right lower extremity. In standing the heel was an inch and a half from the ground, and a boot with a double heel was supplied.

In August he reached Canada. At this time no physical disability was demonstrable. There was a sense of weakness in the right knee, which was always held in a slightly flexed position. The vicious posture habit was complicated by tilting of the pelvis, which exaggerated the apparent shortening.

CASE 4.—*Aphonia.*—Enlisted February, 1915, Age 19. Previous occupation, horse breeder. On his return to Canada after a year in France this man presented a single disability, namely, absence of voice. He makes no other complaint except that he does not think he can do as big a day's work as before he enlisted; gets tired very easily.

Patient carries a note book in which he writes answers to questions. He states that his casualty occurred September 15, 1916. Although he could hear the shell coming, he does not recall the explosion. (The history says that he was buried by the shell explosion, was unconscious for three days and then at first unable to walk). The first thing he remembers is being on board ship going to England, reaching hospital September 18. He states that he could not walk for about two weeks and had a feeling of great weakness. The startle-reflex was conspicuous and sleep was disturbed by terrifying dreams. His chief physical suffering was from headache.

Invalid declares that from the time he regained consciousness he has never been able to speak. On arriving at the hospital he found in the ward two other men likewise affected. All three received similar treatment, chiefly electricity. One case recovered his voice during November and the other in December and both were evacuated from the hospital. Our patient's disability appears to have been more stubborn and he volunteers the information that during eight months in England all kinds of treatment were unavailingly tried, including electricity inside and outside, hypnosis, anaesthetization, lip exercises and the efforts of an elocution teacher.

There is no organic disturbance of the organs of speech. Patient makes the natural sound in coughing and is able to whistle. Coöperation is very imperfect, however. He follows any directions except such as have a direct bearing on his disability. For example, voluntary control of lip muscles is complete; but when asked to imitate lip movements in the formation of letters or words, he simply avoids making the slightest effort. He is inclined to be annoyed by tests directed toward the determination of his disability.

When left to himself the patient is in good spirits; enjoys being with others and takes a keen interest in games and other amusements. He shows no trace of worry because of his lack of voice, and admits the possibility of recovering it sometime.

Case 5.—Another spectacular voiceless case was that of a soldier who received shell wounds of the face with injury to both ear drums and consequent deafness. For five weeks following his casualty he was voiceless as well. One day he was wheeling another wounded patient and accidentally jarred him. The man cried out with pain and our patient asked him if he had hurt him, becoming dumb again immediately. A little later he was seized with a convulsive attack, which he was told lasted three hours. On recovering consciousness he found that he could speak without difficulty.

(To be continued.)

Selected Papers.

DIAGNOSIS IN GENITO-URINARY SURGERY.*

By Adams A. McConnell, M.D., F.R.C.S.I., Dublin,
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The urinary system exercises two functions, the separation of the urine from the blood, and the removal of the urine from the body by the agency of the ureters, bladder, and urethra. A complete diagnosis of a disease in the urinary system would include an exact description of the causative factor; the influence of that lesion on the secretion and removal of urine; and the effects of the derangement of the urinary system on the organism as a whole. In some cases the local organic change is of paramount importance, in others the lesion, intrinsically benign, may produce widespread effects on other components of the system, and, again, abnormalities in the urinary system, may sink into relative insignificance when compared with the nervous, vascular, or metabolic phenomena of the patient. We treat patients, not pathological processes, and it is of first importance to investigate the relationship of the disease to the individual.

To determine the nature of the local cause of disease, the employment of certain technical methods is necessary. Through the cystoscope and urethroscope, the urinary tract from the vesical orifice of the ureter to the external urinary meatus can be seen. Above the ureteral orifice, by the aid of radiography, stone in the ureter and kidney can be demonstrated, and by a combination of ureteral catheterization, the injection of opaque substances into the ureters, and X-ray examination, the capacity, outline, and course of the ureter and its pelvis can be determined photographically, and the presence of obstruction therein can be noted. By such methods the whole of the urinary tract lends itself more to a complete search for local lesions than any other system in the body. The local lesion may retard or accelerate the removal of urine from the body, and its influence can be determined by clinical and cystoscopic methods.

The relationship of the organic cause of disease to the secretion of urine is a difficult problem, as can be seen by a brief consideration of the principles involved. The modern theory of the secretion of urine is that the blood plasma is filtered through the capsules of the glomeruli of the kidney; the filtrate is simply plasma minus protein. In its passage through the tubules this fluid is altered by the absorption of certain of its constituents by the epithelium; the passage of the absorbed water and solids of the glomerular filtrate through the epithelial layer entails the expenditure of energy by the cells. "The secretion of urine thus consists of two distinct processes, differing not only in site but also in nature. The first of these, the filtration, occurs in the glomerulus, and is purely physical; the second, the reabsorption, occurs in the tubules, and depends on the vital activity of the epithelium."—Cushny.

The constitution of the urine depends ultimately on the constitution of the blood, and if the kidney is a filter it would seem practicable to determine its functional capacity with accuracy by comparing the filtrant or blood plasma with the filtrate or urine. If, for instance, the kidney filter were inefficient, the diminution of urea in the urine would imply an increase of urea in the blood, provided that the supply of that substance to the blood were constant. In other words, if a co-efficient expressing the normal relation of the urea in the plasma to the urea in the urine could be proved reliable, the renal function could be accurately tested. Such a co-efficient was introduced by Ambard, but it is subject to criticism on the following points:—The amount of urea in the urine varies within wide limits under normal conditions, though it is fairly constant in a twenty-four hours' specimen. The amount in the blood probably shows a similar variation, and in order to establish a relationship between the urea

* Reprinted from the *Medical Press* of Sept. 4, 1918.

in the blood and that in the urine it would be necessary to withdraw samples of blood at frequent intervals during twenty-four hours, and take the average percentage of urea. Such a method is impracticable. Moreover, when the kidney is not functioning normally urea is often retained in the tissue fluids apart from the blood, and there are no data from which the proportion of this tissue retention can be measured.

Methods of estimating renal function which depend on the relation between the same substances in the blood and in the urine are not of practical utility at present. The determination of the freezing-point by cryoscopy is an accurate method in skilled hands of taking the specific gravity of urine, but the density of the urine does not indicate the functional capacity of the kidney. This does not mean that determination of specific gravity is unnecessary.

The question may be summarized thus:—Analysis of the urine is important, as it gives us valuable information regarding the possibility of renal disorder, but it cannot give us a true picture of renal function. When, however, the amount of urea excreted in twenty-four hours is markedly diminished, it can be assumed that there is retention in the body if the patient is ingesting the normal amount of nitrogenous food. By the estimation of the amount of urea and chlorides, and by taking the specific gravity, a suggestion of the efficiency of the kidney can be obtained, but it must not be concluded that if normal results are obtained the kidneys are normal. Normal urine does not imply normal kidneys. This can be demonstrated by the introduction of foreign substances which are excreted in the urine, and which are easily distinguishable from the ordinary constituents. Of these substances I have more experience with indigo-carmine, but I consider phenolsulphonephthalein a better indicator of renal disturbance chiefly because it lends itself to greater accuracy in technique. The method is applied thus: a catheter is passed and the bladder emptied; the catheter leads to a flask containing some caustic soda solution; 1 c.c. of a solution of the drug is injected intramuscularly. Inside five minutes its appearance in the urine is indicated by a definite pink colouration. The urine is collected for two hours, rendered strongly alkaline, and compared with a standard solution of the drug. 40-60 per cent. of the dye is eliminated in the first hour, and 20-25 per cent. in the second hour in normal individuals. Delay in appearance, diminution in output, and prolonged excretion indicate renal insufficiency, and these signs may be found when the urine is normal. It is significant that a low excretion of phthalein is usually found when retention of urea in the blood can be deduced by clinical and demonstrated by laboratory methods.

Phenolsulphonephthalein is assuming a place of first importance in the diagnosis of renal conditions. All these tests show what the kidneys *are* doing, not what they *can* do. There is no test by which the reserve capacity of the kidneys can be determined accurately. When, however, these methods indicate derangement it may be assumed that the resistance of the kidneys to physiological, pathological, or therapeutic strains will be diminished. The influence of urinary derangement on the body in general can be determined by clinical methods, and it must be remembered that dropsy and ascites, on the one hand, and convulsions and coma on the other, are signs of advanced involvement. More stress should be laid on headache and high blood-pressure.

With this as introduction, I proceed to some illustrations of the general theme, taking first of all obstruction at the neck of the bladder. The commonest cause of obstruction at this site is an alteration of the normal relationship of the prostate gland of the neck of the bladder and to the proximal portion of the urethra.

A ball-valve deformity is occasionally seen, due to enlargement upwards of, or the development of an adenoma in, the middle lobe of the prostate, and in one of my specimens an enlargement of the subcervical glands of Albarran produced a lesion closely simulating pure enlargement of the middle lobe. Though enlargement of the middle lobe of the prostate undoubtedly takes place without the rest of the gland becoming affected, and undoubtedly causes obstruction, it is much more common to find it in association with enlargement of the lateral lobes, with or without continuity of adenomatous tissue. In sections taken through the enlarged prostate and its environs in the dead subject the outstanding features are the limitation of the deformity to the supra-montane portion of the urethra and the constant

non-involvement of the posterior lobe, *i.e.*, that portion of the prostate which lies behind the common ejaculatory ducts. There would have been fewer misconceptions about "general" hypertrophy of the prostate and "total" enucleation if anatomical and pathological studies of the diseased gland *in situ* had been undertaken. We owe much to Lowsley for his careful embryological and anatomical investigations on this subject.

I have had only one case in which hypertrophy of the internal sphincter muscle was the obstructing agent. The mass of hypertrophied muscle markedly accentuated the angle between the floor of the bladder and the proximal portion of the urethra; the appearance of the latter was similar to that seen in cases in which a median bar was proved to exist; microscopic examination demonstrated the muscular origin of the obstruction.

The fibrous median bar at the internal urinary meatus is seen with relative frequency. The small fibrous prostate is a well-known clinical and pathological entity.

The prostatic conditions which in my experience have produced obstruction to the outflow of urine may be enumerated thus: 1. Enlargement of the lateral lobes, frequently accompanied by involvement of the middle lobe. 2. Isolated enlargement of the middle lobe. 3. Enlargement of the sub-cervical glands of Albarran. 4. Fibrous median bar. 5. Small fibrous prostate. 6: Muscular hypertrophy behind the internal urinary meatus.

In one case of mine the symptoms produced by a papilloma at the neck of the bladder were identical with those of enlargement of the prostate. Calculus occasionally gives rise to a similar symptomatology. The symptoms of these various manifestations of prostatic disease are alike, incomplete retention being the most prominent; palpation per rectum indicates only gross changes in the prostate; the differential diagnosis can be made only by instrumental methods. The value of the routine use of Buerger's or McCarthy's cystourethroscope in these cases cannot be over-estimated. These instruments put the surgeon in a position to know exactly what type of obstruction he is dealing with, and enable him to plan his therapeutic measures accordingly. In cancer of the prostate cystoscopic examination occupies a subsidiary place to rectal examination, for the outstanding physical sign is the induration beginning in the posterior lobe and gradually extending upwards between the seminal vesicles. Young has emphasized the importance of this sign, and has pointed out that such induration can be discovered readily by palpating the prostate per rectum, after the introduction of a cystoscope into the bladder.

There are cases in which it is not easy to state definitely that there is obstruction, and in such a careful examination of the nervous system must be made. For the symptoms of obstruction at the neck of the bladder, without any organic cause being perceptible, point strongly to a nervous lesion which is not always tabetic. In fact, in no doubtful case should such an examination, combined with a Wassermann test, be neglected. It may be argued that if a patient presents himself with obstruction at this site, the exact type is a matter of little importance, for he must undergo an operation for its removal. Exact diagnosis has a bearing on treatment and on prognosis. The fibrous bar and the hypertrophied muscle can be treated through the urethra without a general anaesthetic and without loss of blood. Prognosis is closely allied to diagnosis and the prognosis in cases of the small fibrous prostate is not good either with regard to the immediate success of the operation or to its ultimate result. Moreover, if anticipation of possibilities be desirable, how much more so is knowledge of the facts.

The exact nature of the local lesion is of small importance compared with the effects produced on the kidney. Obstruction at the neck of the bladder causes retention of urine, the muscular coat of the bladder becomes hypertrophied in the effort to overcome resistance, but in spite of the excessive muscular exertion some urine remains constantly in the viscus. The presence of the residual urine and the excessive development of the vesical muscle round the ureteral orifices cause a certain amount of back pressure along the ureters, which become dilated, and a condition of hydronephrosis results. The fluid retained in the pelvis of the ureter exerts pressure on the kidney itself, and, if of long standing, interferes with the secretion of the urine. Evidence of this interference may be afforded by the passage of an increased amount of urine of very low density and containing a trace of albumin.

As a rule, however, the urine is normal. It is the reserve capacity of the kidney that is diminished, as can be seen by interfering with the conditions under which it is working. The organ is secreting against pressure, and the relief of pressure produced by keeping the bladder empty produces swelling and congestion, the pathological condition found being one of acute nephritis superimposed on a chronic process.

Pilcher and other observers have demonstrated three phases, the first before relief of obstruction, a relatively normal condition, the second after relief, distinguished by diminished amount of urine, 15-20 oz. a day, low specific gravity, 1002-6, albumin appearing or increasing in amount, low output of phthalein. The third phase shows the recovery from this reaction. These changes in the urinary system are reflected in the general condition of the patient. After drainage of the bladder has been established he often suffers from general depression, loss of appetite, restlessness, nervousness, sometimes vomiting, and uraemia. The blood pressure, which before was high, 200 m.m. Hg., falls, and does not recover for some days. The high antecedent B.P. probably indicates an attempt to keep up the secretion through a damaged kidney. Our fathers realized the danger of withdrawing all the urine at once in cases of acute retention. Modern workers realize the danger in chronic retention, and therefore practise systematic preoperative drainage, either by catheterization or cystostomy, so that the kidneys and patient may recover from the reaction before the stress of operation is added. The fear of uraemia has been present in the minds of all surgeons after prostatectomy. Whether the general condition of the patient justifies an operation or not, it is no contra-indication to preliminary drainage by regular aseptic catheterization. When a general anaesthetic is contra-indicated I would advise the use of spinal anaesthesia.

TUBERCULOSIS OF THE URINARY TRACT.

Lesions of the prostate and the neck of the bladder are elements of an essentially mechanical process, namely, obstruction to the outflow of urine and its sequelae. We now pass on to infections of the urinary tract with tubercle bacilli, and at the outset it is advisable to enumerate the principles on which depend both diagnosis and treatment. The first part of the urinary tract to be involved in tuberculous disease is the kidney, and the bladder is the indicator thereof. Vesical symptoms have a renal cause, when tubercle bacilli are present in the urine. There are, of course, exceptions to this generalization, but the efforts to prove the generalization will indicate the exceptions. We cannot give an accurate description of the causative lesion in renal tuberculosis in a clinical case; all we can determine is the presence in the kidney of a tuberculous focus; if the symptoms have developed very recently we might venture on the diagnosis of a focus of tuberculous granulation tissue near the apex of a pyramid involving the corresponding calyx. The diagnosis of such a focus can be definitely determined only by the collection of urine from that kidney and the demonstration in it of the bacilli. From the kidney the infection spreads to the bladder along the lumen of the ureter. The orifice of the ureter becomes oedematous, small tubercles form round it, and ulceration follows. The appearance of these signs at the ureteral opening is of the utmost diagnostic importance in an early case, for it signifies the presence of disease in the corresponding kidney. On the other hand, the disease may have totally destroyed the kidney on one side, the bladder, and *both* ureteral orifices may be involved, and the kidney on the other side may be sound. Too much significance cannot therefore be attached to the appearance of the ureteral orifices in an advanced case. *Both* ureters must be catheterized; if the urine from one is normal it is safe to diagnosticate an extensive tuberculous process in the kidney of the other side.

The amount of disturbance in renal function is sometimes out of all proportion to the extent of disease, as can be seen by comparing the urine from each kidney. The same general method of diagnosis is applicable to all renal cases. When excessive mobility of the kidney is the cause of symptoms, the effect of that mobility on the removal of urine can be estimated by pyelography, and on its secretion by phthalein.

TUMOURS OF THE BLADDER.

I want briefly to touch on another subject in which the local lesion is of outstanding importance. I refer to vesical tumours. It is com-

monly held that any tumour in the bladder may be malignant, and that an accurate diagnosis can be made only by examining the base of such a growth. When our best means of treating all vesical growths was by suprapubic cystotomy, it did not matter much whether we made our diagnosis before or after removal, as we always took away the base of the tumor, and that part of the vesical wall to which it was attached. With the advent of the high frequency current as an endovesical method of treatment, it is essential that we should exclude malignant disease before high frequency cauterization is employed.

Buerger in 1915 gave in detail the results of pathological examination of 113 cases of bladder tumours, and pointed out that it was possible in 112 to make an accurate pathological dignosis from pieces removed from the *surface* of the growth. He based his diagnosis of malignant change on certain peculiar abnormalities in the conformation of the cells. These are: Cells manifesting irregularities in size and shape; nuclei rich in chromatin, deeply staining and of bizarre shape; cells with atypical mitoses; giant cells and multi-nucleated cells. All these, when occurring in papillomata, indicate the presence or beginning of carcinomatous change.

Further evidences are afforded by an unusual relationship of the cells to each other, in a loss of the typical palisade arrangement of the cells, in the presence of a long fusiform or compressed type of cell, in the existence of evidences of infiltration of the stroma and penetration of the basement membrane, in the presence of cells in the capillaries, and finally in the occurrence of epithelial cells in the submucosa or muscular coats of the vesical wall. When these latter changes are present the surface cells show the changes outlined above.

Any papilloma may appear benign and be malignant, while the reverse is sometimes true, and different portions of the same growth may show different pathological processes. It is, therefore, of great importance to remove as large a piece as possible—which is most easily done with a snare, or to remove several fragments with the punch forceps from different portions of the growth. In order to avoid the risk of disseminating the disease by opening up tissue planes in the growth, the tumor is immediately cauterized by the high-frequency current. With these precautions valuable data for diagnosis and essential indications for treatment can be obtained. If the growth is a benign papilloma the high-frequency current is the method of election for treatment, if it be a malignant papilloma, *i.e.*, one which shows some of the surface changes indicated above, the high-frequency current is often effective, but should not be persisted in if four or five treatments bring about no marked improvement. In other types of malignant growth radical operation is urgently called for.

LESIONS OF THE POSTERIOR URETHRA.

Lesions of the posterior urethra, though sometimes intrinsically insignificant, frequently affect deleteriously the urinary, sexual, or mental balance of the patient. This region has been somewhat neglected by the genito-urinary surgeon and ignored by the practitioner, probably because of the difficulties met with in obtaining a clear view through open air urethroscopes. A most important advance in diagnosis followed the introduction of the lens type of water dilating urethroscope, through which the posterior urethra can be inspected as easily as the bladder through the cystoscope, and more easily than the anterior urethra through the aero-urethroscope. There is now no reason why this portion of the urethra should not be included in any routine examination of the bladder. It must be remembered, however, that as vesical lesions often indicate a pathological renal condition, so many lesions in the prostatic urethra point to a primary focus of infection in the prostate or seminal vesicles.

Many of the pathological conditions found are either concomitants or results of gonorrhoeal infection, producing a common appearance of the verumontanum which may persist long after the discharge has ceased, and may be the cause of irritability, either urinary or sexual. Small cysts in the roof of this portion of the urethra, or scattered in the region of the verumontanum may keep up a slight discharge, often free from micro-organisms, for many months. Inflammation round, and the issue of pus from, the orifices of the ejaculatory ducts direct treatment to the seminal vesicles. Small ulcers and granulations furnish indications for local applications. I have had two cases of polypus of this part of the urethra during the

last year, in both of which frequent emissions, sexual irritability, and neurasthenia were prominent symptoms.

Since this paper was read I have encountered a case of double pyelitis with intense vesical tenesmus, which showed a greatly swollen and ulcerated verumontanum; treatment directed to this region temporarily allayed the vesical irritability. Similar symptoms do not always indicate similar pathological processes, so complete and exhaustive examination is never waste of time.

Diagnosis should be detailed, yet wide in its application; it should not be hampered by experience, nor should tradition bind it. It should, as far as possible, be based on direct observation, for the classical dictum that mistakes are made more through want of observation than lack of knowledge still holds good.

Society Report.

ABSTRACT OF THE PROCEEDINGS OF THE FORTIETH ANNUAL CONGRESS OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, HELD AT ATLANTIC CITY, NEW JERSEY, MAY 27-29, 1918.

(Continued from page 567)

THREE UNUSUAL NASAL (SPHENOPALATINE) GANGLION CASES.

GREENFIELD SLUDER, M.D., ST. LOUIS.

The usual neuralgic picture is pain in and about the eyes and the upper jaw, the teeth, extending backward about the temple under the zygoma into the ear, making earache; and then backward into the mastoid; and severest usually at a point two inches back of the mastoid, to extend into the occiput, the neck, the shoulder; into the shoulder blade, and sometimes the axilla and breast, and frequently down into the arm, forearm, hand and even to the finger tips.

Added to this symptom complex, frequently is found a sneezing and watery secretion, more marked probably in the morning, frequently extending through the day; a red external nose, with tearing eyes, photophobia, and a sense of discomfort in the eyes difficult for the patient to describe.

Occasionally, however, are added unusual features to this clinical complex. These cases record phenomena that at present are unique and cannot be explained. They may be recorded as facts.

The first case was relieved of the dizziness and the headache after cocainization of the ganglion, the headaches returning in six hours. The patient passed from further observation.

In the second case headache ceased, but as an effect of cocainization the right eyelid drooped very perceptibly to obscure probably half of the blepharospasm, and the pupil contracted to one-half of its fellow of the opposite side.

The third case was one of a right-sided blepharospasm of great severity, and was a post-ethmoid sphenoid suppuration with polyps on the right side.

Cocainization of the right nasal ganglion relieved the blepharospasm for a period of three hours and injection of the same ganglion was followed by relief of the spasm for three to six hours.

Operating on the ethmoids and sphenoid did not relieve the spasm.

The left side was then operated upon without relieving the spasm, although the right eyelid opened after injection of the left ganglion

DISCUSSION.

DR. EMIL MAYER, New York City: We are much indebted to Dr. Sluder for calling attention to these nasal ganglion cases and what may be done for them. I recall the case of a young woman whom I had successfully treated for dysmenorrhea by intranasal treatment. She came to me later, suffering with headache, and I cocainized the nasal ganglion on the side that she had her headache. An hour afterward she telephoned to say that her headache had completely ceased. She was so rejoiced that she felt that she must let me know at once how much better she was. She remained well for some months and then had a recurrence. She came again and had an application made to the ganglion on that side, and it has remained well ever since. Though I cannot explain why we can get such wonderful results in dysmenorrhea cases by a treatment which must perforce be called empiric, some of us may at some time be able to understand and explain it. The word "empiricism" must apply in this instance, as in the other instance of Dr. Coffin's, where we are unable to give a true scientific reason for the things that we do. The result is

there, and the patient is happy, and that is all that can be said.

Dr. Henry L. Swain, New Haven: I have tried to cocainize the ganglion neuralgic cases, and I want to confirm the speaker in what he has observed on the question of dizziness, which I have been unable to explain any more than he has. One of the cases that I cocainized for headache also suffered from vertigo, and it was relieved entirely during the period of her cessation from pain, which was only two or three weeks. I made another application of adrenalin and cocain in combination, and she was relieved for so long that she did not think it necessary to have any further treatment of that kind. That was a year ago. I have not seen her since, and do not know whether she is still well or not.

The question of why we have pain in these sinus cases is most interesting. I have had a number of cases of severe pain with disease which I thought was well and have had an x-ray picture taken to learn the exact state of things. The neuralgia has ceased in five instances immediately after taking the picture, so there must have been something in the exposure to the x-ray that broke up the nerve complex in some way and caused the pain to stop on the spot. Previously I had been treating the case without seeming relief. Immediately after taking the picture the pain stopped. This occurred in several instances in persons that I saw every day, the pain ceasing thereafter entirely. The question arises, Could this fact be put to some therapeutic use, and be of some therapeutic value? Shall we expose patients with this type of neuralgia to the x-ray to cure them? That question I leave to you to answer, but I do not think that this occurrence was accidental in all five cases in which there was no sinus disease but neuralgia, and in which following the x-ray exposure the pain disappeared entirely.

Dr. Greenfield Sluder, St. Louis, closing: The case that Dr. Mayer has described was, I fancy, one of those in which the ganglion lies particularly close to the surface. That sometimes happens, and such a case may be exploded into the most violent lower-half headache by an ordinary coryza. Cocainization, in that case, is curative, not palliative merely.

Dr. Swain's observation that an x-ray relieved headache is exceedingly interesting.

REPORT OF SYPHILITIC NECROSIS OF THE INTERMAXILLARY PORTION OF THE SUPERIOR MAXILLA.

Lieut.-Col. Charles W. Richardson, M.C., N.A., Washington.

The history of a young man, twenty-six years of age, married, stock broker's clerk, is presented. First seen on April 16, 1917, on account of intense pain in the floor and lateral wall of the left nasal chamber. There was no swelling or inflammation, and no interference with the function of the left nasal chamber.

The patient had shortly before been operated on, or stated that he had been operated on for a mild affection of the septum, although there was no evidence of such operation having been done. The patient's condition was attended by great suffering.

After a few days, during which transillumination and x-ray examinations were made of the incisors and lateral bicuspids, as well as of the left antrum, all of which were negative, a Wassermann was made which resulted in a double positive.

As there was great tenderness over the upper incisors, patient had four of these removed. Salvarsan was given. In spite of this the intermaxillary bone separated by rapid necrosis in one mass.

The important and salient features of this case are:

1. Severe and continuous pain without any objective signs.
2. The severe necrosis without any inflammatory swelling.
3. The complete limitation of the necrosis within distinct anatomic borders.

DISCUSSION.

Dr. Henry L. Swain, New Haven: In a similar case to Dr. Richardson's, where the patient had most severe pain, after proper internal and local treatment, I removed a sequestrum fully as large as that which he has shown us. A fistulous tract led through to the floor of the nose. The entire premaxillary bone came away, but complete healing resulted.

CYST OF THE THYROGLOSSAL DUCT—A REPORT OF TWO CASES.

Otto T. Freer, M.D., Chicago.

The anatomic origin of these cysts is described by the author. Two cases are reported.

CASE 1. Male, began to have difficulty in swallowing, and at the same time noticed a swelling in the region of the thyrohyoid space. When first seen, on April 19, 1915, the swelling had increased and there was an increase in the difficulty in swallowing, so that to make solid food go down he had to try twice and help with a mouthful of water.

Examination showed a normal nose, pharynx, larynx and esophagus. In the thyrohyoid space a cyst was felt, seemingly lying underneath the sternohyoid muscles. It was of walnut size and could be felt to interfere with the ascent of the thyroid cartilage to the hyoid bone when the patient swallowed—that is, the cyst became pinched between the two structures.

Operation on June 17, 1915. After dissecting off the superficial fascia and platysma muscle from a vertical median incision, a strong, tendinous layer of fascia was exposed that was attached to the lower border of the hyoid bone above and to the border of the thyroid notch below, so firmly binding down the cyst between itself in front, the median thyrohyoid ligament behind and the thyrohyoid membrane laterally, the cyst being unable to escape from the compartment in which it was confined when pinched during swallowing. When exposed by removing the fascia described, the wall of the semitransparent cyst was found to be so frail that it could not be seized lest it tear. This made the dissection tedious, as only the tissue surrounding the cyst could be held with tissue forceps, the cyst being held aside with dull retractors. The cyst was removed unhurt from its bed and was found to end above in a fibrous pedicle that lay against the posterior surface of the body of the hyoid bone and could be followed as high up as its superior border at the level of the hyoepiglottic ligament. Removal of the cyst exposed the median thyrohyoid ligament to view, this ligament forming the posterior wall of the compartment in which the cyst had been confined.

Microscopic section of a part of the cyst wall showed it to be composed of fibrous tissue lined with a layer of leucocytes intermingled with numerous, evenly distributed giant cells. There was no epithelium. The cyst contained a clear fluid. The removal of the cyst enabled the patient to swallow normally.

CASE 2. The second patient was a woman of thirty-two years, first seen on November 8, 1916. She had a swelling over the larynx since her tenth year. Iodin was injected into this swelling during the summer, and since this was done the swelling had gradually increased in size.

Examination showed a spindle-shaped cystic tumor of the size of a walnut in the prelaryngeal region. The upper pole of the cyst could be felt to dive under the center of the body of the hyoid bone; its lower pole dwindled to a cord that could be felt to reach the region of the thyroid isthmus.

Operation under cocain on November 17, 1916. It took two hours to dissect out the cyst, as only the most delicate handling could prevent its rupture, and inflammatory changes caused by the iodin injection had made the cyst wall grow to its surroundings, so that the thyrohyoid and sternohyoid muscles were firmly joined to it in front. The upper end of the cyst ended in a cord that extended upward under the body of the hyoid bone to its upper border, where it was lost in the hyoepiglottic ligament. Below, the cyst ended in a similar cord that joined the isthmus of the thyroid gland. When freed from its bed, just before removal, the cyst ruptured, thick pus escaping, a cold abscess probably caused by the iodin injection.

After the cyst was taken away, the thyroid and cricoid cartilages, upon which it had lain, were bared to view.

In the first case the possibility of the cyst being one derived from a subhyoid bursa might come into question. However, the pedicle which formed a cord passing up under the body of the hyoid bone in the location of the thyroglossal duct, showed the thyroid origin of the cyst.

In the second case the entire thyroglossal duct, expanded to a cyst in its middle, was present to prove the correctness of the diagnosis.

REPORT OF A CASE OF LARGE OSTEOMA INVOLVING THE RIGHT FRONTAL SINUS AND UNCOVERING THE ADJACENT BRAIN.

JOHN F. BARNHILL, M.D., INDIANAPOLIS.

This occurred in a girl of sixteen years who first noticed a swelling on her forehead a year previously, which caused no symptoms, but was increasing slowly in size. The speaker was consulted because of deformity.

X-ray plates showed an oval tumor involving the right frontal sinus, with absorption of the external and internal plates of the sinus walls.

Operation August 21, 1917. An area of half an inch in circumference was wanting in the frontal wall of the sinus, and through this the hard glistening tumor presented.

The remaining portion of the frontal wall was removed by rongeur and the tumor forcibly pried out by stout bone rasps. It was attached to and extended into the infundibulum. The dura was exposed and absorbed over a large area. Some softened bone about the margin of the dehiscence was rongeured away, a light sprinkle of iodoform powder applied to the exposed dura and brain. The infundibulum was enlarged by means of a bone rasp, a drain tube inserted, the cavity was lightly packed with sterile gauze and the external wound completely closed.

Recovery with but slight scar was entirely uneventful.

The tumor was an osteoma, weight a little more than six hundred grains, with great density.

DISCUSSION.

Dr. John M. Ingersoll, Cleveland: At the meeting last year I showed some radiographs of an osteoma of the frontal sinus in a boy fourteen years old, following a blow from a baseball. He has been under observation for three years. During the first year after the operation I was very hopeful, but the radiographs that I exhibited last year showed a recurrence and that the osteoma had grown back into the brain cavity so far that it was inoperable. The tumor grew originally from the infundibulum into the frontal sinus, just as it did in Dr. Barnhill's case. The general opinion is that the tendency of these growths to recur is very marked.

We have now under observation, at Lakeside Hospital, a man who has an exophthalmos, one eye being pushed downward and forward by an osteoma growing from the external part of the orbit. The x-ray taken two months ago, compared with one taken recently, shows that the osteoma is slowly increasing, but with the known tendency of these growths to recur rapidly, we have hesitated to operate.

Dr. John E. Mackenty, New York City: In the service at the Manhattan Hospital, in another department, I was interested in an osteoma of the frontal bone. It involved the frontal sinus and extended back along the base of the brain, going through to the dura. The condition is pretty well recognized under the name of ivory osteoma of the frontal bone, and it is rather serious to operate on it. This man's was due to syphilis. He had evidence of syphilis at the time. I should like to ask Dr. Barnhill whether this girl's blood was examined for syphilis. The man subsequently died of meningitis. His tumor was not operable. The consensus of opinion is that when these tumors are very large, they are inoperable because the difficulty of getting them out entirely is so great.

Dr. John F. Barnhill, closing: She was an only child. There was no evidence of hereditary syphilis, and I looked on her as a perfectly well girl except for this ivory-hard tumor. I should be greatly amazed if this should turn out to be a sarcoma. I am well aware that sarcoma is more common in this region than anything like one. I should be greatly astonished if it returned. When I pried it off, it snapped from the infundibular attachments with a crack such as would a piece of marble, and in sawing through it was so ivory like that it could be compared to a billiard ball. There was no suspicion on the part of anyone that it could be sarcoma, but I know the tricks of sarcoma so well that I would not say that it is impossible for it to have been one.

(To be continued.)

American Medical Biographies.

JANEWAY, THEODORE CALDWELL (1872-1917).*

Theodore Caldwell Janeway was born in New York City, November 2, 1872, son of Professor Edward G. Janeway, America's leading clinician, consultant and teacher, and Frances Strong Rogers. Developing in such a highly charged medical atmosphere, Theodore Janeway also became eminent as a physician, a leader in scientific work, and a teacher.

Beginning at the Cutler School, he graduated from the Sheffield Scientific School, Yale (1892). He graduated in medicine at the College of Physicians and Surgeons (1895); practised with his father and was instructor in bac-

* From the forthcoming "American Medical Biography," by Dr. Howard A. Kelly and Dr. Walter L. Burrage. Any important addition or correction will be welcomed by the authors.

teriology in Columbia (1895-1896); interne in St. Luke's Hospital (1897); instructor and lecturer in the University and Bellevue Hospital Medical College (1898-1906); associate in clinical medicine in the College of Physicians and Surgeons, Columbia (1907-1909); and upon the retirement of Dr. Walter Belknap James (1909) he became professor of medicine, until his resignation in 1914 to go to the Johns Hopkins University and hospital.

"Janeway as a young man was conscientious, serious, persevering, and matured early. . . always studious and a hard worker, but lighthearted and keen among his fellows, and cheerful and well-liked" (Howland).

In his medical training under the constant supervision and guidance of his father, he received a continuous intensive training, absorbing medicine at every pore, and as far as it is ever possible for one man to transfer his abilities, the extraordinary skill of the elder Janeway was engrafted into the heart and mind of the son.

Theodore Janeway was the first in New York City to teach medicine from the standpoint of disease as a departure from the normal physiological basis, and with Oertel he introduced at the City Hospital the clinical pathological conference.

The clinical study of blood pressure in this country began with him, and he devised the first instrument readily available at the bedside.

When he went to the City Hospital on Blackwell's Island, the service was wretched, but in a short time he reorganized it with an active efficient staff and with men competing for the positions on his service.

While in New York he advised and assisted the charitable organizations caring for those incapacitated for work by accident or disease; he was also closely identified with the Charity Organization Society and organized the bureau for the handicapped, a work which he considered his most original contribution. He informed the writer personally that it was a matter of serious regret that the pressing duties at the Hopkins Medical School prevented his active coöperation in this work in Baltimore.

While in New York he was visiting physician to St. Luke's, the City, and the Presbyterian Hospitals; he was active in the Association of American Physicians, and in other medical societies; at the time of his death he was on the governing board of the Rockefeller Institute of Medical Research.

In 1914, under the grant from the Rockefeller Foundation the Johns Hopkins University adopted a whole-time basis for three chairs in the medical school, and Janeway was called as the first whole-time professor of medicine under the William Welch Endowment. His predecessors in the medical school were Sir William Osler and Lewellys F. Barker.

This decision to place these chairs on a full-time basis was a "new departure in medical education in the English-speaking world."

Janeway took part in establishing the Post-graduate School for the Study of Tuberculosis at Saranac Lake, in memory of Edward Trudeau; and for three years he was president of the Laennec Society, organized by Sir William Osler at the Johns Hopkins Hospital, for the study of tuberculosis.

A member of the Army Medical Corps, he was called into active service in April, 1917, intending to go to France with the Johns Hopkins University Unit in June, 1917, but was persuaded that his best service could be rendered in this country. He entered the service as a member of the United States Reserve Officers' Corps, safeguarding the health of the soldiers, a work temporarily interrupting his teaching activities.

As an organizer and as a clinician Janeway excelled, and was the leader of "a younger group of physiological clinicians who have been quietly but surely upbuilding and transforming American medicine" (Osler). He stood with the new school of clinicians in wedding pathology as closely as possible with clinical medicine.

Janeway's "Clinical Study of Blood Pressure" was published in 1904, and admirably illustrated the application of physiological methods to bedside problems" (Osler).

He was an editor and contributor to the *Archives of Internal Medicine*.

An elaborate work on diseases of the heart and blood vessels was nearly completed at his death; it was to have been published early in 1918, but military duties interfered.

As a public speaker, he began slowly and with hesitation, but soon warmed up and presented his subject in a clear, logical, convincing way; he became eloquent as he caught the sympathy of his audience, developing a high degree of oratory by simple force of earnestness and

moral conviction. He won friends in his personal relations by an unusual charm of manner.

His geniality and sympathetic traits of mind are seen at the best in the brief "Introductory Survey of French Medical Science" ("Science and Learning in France," 1917).

In appearance, Janeway was of slight, well-knit and alert figure, with quick yet graceful movements. With a mobile expression, his face would light and his eyes sparkle with animation as he talked. His whole appearance, to the stoop of his shoulders, indicated the scholar combined with the man of wide public interests.

In 1898 Dr. Janeway married Eleanor C Alderson of Overbrook, Pa., who, with three daughters and two sons, and his mother, survived him.

After less than a week's illness of pneumonia, he died at his home in Baltimore, December 27, 1917.

REFERENCE.

Lancet, 1918, cxciv, 80.
Johns Hopkins Hosp. Bull., Balt., 1918, xxix, 142-148, Post.

HOWARD A. KELLY, M.D.

Book Reviews.

The Internal Secretions. By E. GLEY, M.D. New York: Paul B. Hoeber. 1917.

and

Organs of Internal Secretion. By IVO GEIKIE COBB, M.D., M.R.C.S. New York: William Wood and Company. 1917.

These two books are valuable contributions to the study of the internal secretions; they present the subject from the physiological, the pathological and the therapeutic standpoints, and indicate both the objections to the use of organic extracts and the benefits which may be derived from it.

The first volume, "The Internal Secretions," deals primarily with the physiology of the internal secretions and their application to pathology. A historical review of the subject is presented: the precursors and founders of the doctrine, the present conception of internal secretion, and the part contributed by pathology, are mentioned. The conditions are described which are essential to internal secretion—the histological, chemical and physiological considerations. The author discusses the practice of administering organic extracts, and gives in detail the objections to it. The book deals, also, with the following topics: the principal distinctive characteristics of the products of internal secretion, nutritive and morphogenetic substances, the hormones and parahormones, the endocrine products, the classification of the internal secretory glands and their products, and the function of the internal secretory glands.

The second book, "Organs of Internal Secretion," presents the salient facts in the study of the endocrine glands, their diseases and their therapeutic application. The author emphasizes the importance of the smaller signs and symptoms which show minor disturbances of the glands. There are two causes which may be responsible for the disorganization of the endocrinic system—intestinal toxemia and mental causes. The conditions are mentioned which disturb the normal ratio between the various hormones; and the pathology and treatment of the organs of internal secretion, the use of organic extracts and the place of hormone therapy in medicine are discussed. Dr. Cobb believes that while there are objections to the use of organic extracts in medicine, organo-therapy opens a field which in the future may be of considerable value in ameliorating the conditions of patients suffering from diseases hitherto intractable.

Handbook of Anatomy. By JAMES K. YOUNG, M.D., F.A.C.S. Philadelphia: F. A. Davis Co. 1917. Fifth edition.

This "Handbook of Anatomy" furnishes a concise and complete synopsis of human anatomy. The chief improvements in this edition are the clear illustrations, many of which are colored, and the use of the Basle nomenclature. This is, perhaps, the only anatomical work of its size which fully includes the newer terminology. The book outlines osteology, articulations and ligaments, the muscular system, the heart and vascular system, the alimentary, vocal and respiratory, and the genito-urinary apparatus, the nervous system, the organs of the special senses, and surgical and dental anatomy.

Botanic Drugs. By THOMAS S. BLAIR, M.D. Cincinnati: The Therapeutic Digest Publishing Company. 1917.

"Botanic Drugs" is a book of timely interest inasmuch as war conditions have made necessary a more careful study of the production of our own indigenous botanic drugs and a development of our crude chemical resources. This book presents a record of data concerning such botanic drugs as seem most valuable for medical purposes. A brief review of the history of botanic medication and a list of the most widely recognized botanic drugs are given. Many pharmaceutical considerations are described, among which are: the crude drug, tinctures and extracts, and proximate principles. Some of the problems are stated which pharmacology has already solved, particularly the development of methods of drug standardization. The main part of this book is devoted to an alphabetical list of botanic remedies, their therapeutic values, and systems of dosage.

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The Journal does not hold itself responsible for any opinions or sentiments advanced by any contributor in any article published in its columns.

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126 Massachusetts Ave., Corner Boylston St., Boston, Massachusetts.

ALCOHOL IN INFLUENZA.

UNDER date of October 1, 1918, the following letter, signed and countersigned by the President and Secretary of the Boston Liquor Dealers' Association, was sent out to the physicians of Boston:

If there are any of your patients in such financial circumstances that they are unable to purchase whiskey or other alcoholic stimulants for medicinal purposes to combat the influenza and you feel that such a prescription is necessary to their recovery, our Association will gladly supply whatever you need, without cost, while the epidemic continues.

Please 'phone or write to me at the above address and I will see that the prescriptions are delivered promptly.

This letter is sent after a talk with Dr. Woodward, who suggested that any offer of this action should be made direct rather than through the Health Commissioner's Office.

This letter has been construed by some as an effort on the part of the Association to use the Health Department of Boston in the exploitation of alcoholic stimulants "to combat the influenza." Others read into the letter a willingness and desire on the part of the Health Commissioner to exploit the use of alcoholic liquors for this purpose. In order that all circumstances of the case may be known and presented to the medical profession, it seems desirable to publish certain correspondence, relative to the matter, which has been placed in our hands.

The first document, dated October 13, 1918, is a letter from the Health Commissioner to the President of the Boston Liquor Dealers' Association.

Exception has been taken to the letter that you sent to the physicians of this city, under date of October 1, 1918, offering to supply their patients, through them, with such whiskey and other alcoholic stimulants for medicinal purposes to combat the influenza as the physicians might deem necessary, and as the patients might find difficulty in purchasing because of their straightened financial circumstances. The particular part of the letter to which exception has been taken is the last paragraph, as follows:

> "This letter is sent after a talk with Dr. Woodward, who suggested that any offer of this action should be made direct rather than through the Health Commissioner's Office."

I told you further, as you doubtless recall, that I, as Health Commissioner, could not presume to advise the physicians of Boston as to whether they should or should not use alcoholic stimulants for the treatment of influenza, but that each physician must determine in each case that came under his care whether he would or would not use alcohol, etc. I told you further that the Health Department had no persons under its care who were being treated for influenza. These circumstances, I explained, rendered it impossible for the Health Department to make use of any whiskey or other alcoholic stimulant for the treatment of any person suffering from influenza.

You thereupon inquired as to how you could get into touch with physicians who were treating patients suffering from influenza, and I told you that it seemed to me that the only way in which you could do so was by presenting the matter to them directly, yourself.

The foregoing statement embodies all of the material facts of the case. In view of the criticism that your letter has evoked, I am sending a copy of this letter to the BOSTON MEDICAL AND SURGICAL JOURNAL, as the agency through which I may be able to make my position clear to the medical profession of the city, and to the Anti-Saloon League, through which the prohibition element of the city may be correctly and definitely informed.

The phraseology of this letter is unfortunate inasmuch as the use of the words "rather than" seems to imply that I had contemplated making officially for you the offer embodied in your letter. This, of course, was not the case.

You doubtless recall that you came to me, on behalf of the Boston Liquor Dealers' Association, and offered to furnish, through my office, to any person who might be in need of whiskey or other alcoholic stimulant for the prevention or cure of influenza, and who might be financially unable to obtain it, such supplies of whiskey or other alcoholic stimulant as might be necessary.

I told you then that, in my judgment, the best medical opinion was to the effect that alcoholic stimulants had no preventive action in relation to influenza, that I wholly accepted that opinion, and that I had no use for any alcoholic stimulant for any person for the prevention of influenza.

The second document is the following reply of the President of the Boston Liquor Dealers' Association to the above letter:

Your letter of October 13th received, together with copy of a letter addressed to me which you ask me to criticize and approve before you send the final draft to the Boston Medical and Surgical Journal. I thank you for the opportunity and accept the offer herewith.

Please understand that our Association is not hopeful of overcoming the animus on the part of the officers of the Anti-Saloon League and will not waste time in the attempt. We are a responsible organization, with millions of invested capital, regulated by law and licensed to do business under an annual vote of approval by a large majority of the citizens of Boston.

So far as our offer to the physicians of the city is concerned, the letter from you was the first intimation received by us that there was the slightest misunderstanding about it. The offer has been accepted at its face value by a number of physicians and we have been thanked for making it.

It would have been manifestly discourteous and irregular on our part to make any offer of stimulants to anybody for combating the influenza, without first consulting you. That was why we made the offer to you at the conference which you granted us for the purpose of offering you our hearty coöperation as an organization. The stimulant offer was only incidental.

Not only did you state, however, that any offer of the nature contemplated should be made direct, but you specifically suggested that, in addition to the doctors, we should include the District Nursing Association—an organization unknown to us up to that moment.

Your views on whiskey were outlined to us and you will recall that we took no exception to your views. Whether criticism on our part of methods of medicinal treatment in conflict with yours would have been accepted with equal equanimity by you is a question.

Our offer was made in the utmost good faith; it cannot be misunderstood by any one who wishes to understand it; and any attempt to pervert a simple act of common decency or to place us in a false light on the part of the Anti-Saloon League or other agitators who do not concur in the majority views of the voters of Boston, will be met with the facts, as herein outlined.

This correspondence makes clear the entire situation and should wholly remove from the minds of any who have entertained it, the slightest impression of unjustifiable action on the part of the Health Department. The personal attitude of the Health Commissioner, in which we editorially concur, is that the use of alcohol in any form for the prevention of influenza is not justified by anything we know concerning its physiologic and therapeutic action, nor by anything we know concerning the etiology of influenza. Whether alcohol shall or shall not be used in any case for the treatment of a patient suffering from influenza is a matter which must be determined by the physician in attendance, and upon which the Health Commissioner cannot and properly should not pass judgment.

AMERICAN MEDICAL BIOGRAPHIES.

We are glad to announce that arrangements have been made with the authors of the forthcoming "American Medical Biography" by which a certain number of selected biographies from that book will appear in the columns of the Journal in the immediate future. The first of them is published in the present issue.

MEDICAL NOTES.

Yellow Fever in Guatemala.—Cases of yellow fever have developed at San José, Guatemala, and the Commandant and the port doctor have died from that disease. A steamer which arrived at Acajutla on October 18, was placed in quarantine because it touched San José. The Salvadorean government has ordered that the frontier between Guatemala and Salvador be closed. Travelers will be permitted neither to enter nor to leave Salvador.

Tuberculosis Unit Lands in France.—The American Red Cross Tuberculosis Unit for Italy arrived safely in France on October 20 and proceeded at once to Rome. The unit consists of Miss Isabel Hall, public health nurse; Seymour Stone, field secretary; and Morgan H. Stafford, assistant manager, all of Boston.

President Receives European Surgeons.—Surgeons of England, France and Italy who are guests of the American College of Surgeons were presented to President Wilson at the White House on October 22. They will visit a number of cities before sailing for home. They will visit Camp Greenleaf, Fort Oglethorpe, St. Paul, and Rochester, Minn.; Chicago and Pittsburgh. The party includes Sir Thomas Myles of Dublin, formerly president of the College of Surgeons in Ireland; Col. George E. Gask, D.S.O., consulting surgeon of the British 4th Army in France; Maj. George Grey Turner of Newcastle-on Tyne; Maj. Pierre Duval of Paris, a member of the faculty of the University of Paris; Dr. Henry Beclere, an x-ray expert of Paris; Maj. Adrien Piollet of Ambre, France; Lt. George Loewy, instructor in the

Rockefeller Institute for Medical Research in New York; and Prof. Raffaele Bastianelli, a member of the faculty of the Royal University at Rome and one of the best known surgeons in the Italian capital.

NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS.—On Tuesday, November 26, 1918, at 8.30 P.M., will be held the annual meeting of the National Committee for the Prevention of Blindness, in the Academy of Medicine, 17 West 43rd street, New York City. The chief speaker of the occasion will be Lieutenant Colonel James Bordley of Baltimore, whose subject will be, "The Government and Red Cross Work for Blinded Soldiers."

WAR NOTES.

MORTALITY OF THE AMERICAN WOUNDED.—The experience derived from four years of the war on the western front is very satisfactory from the point of view of the results of the casualties. It has been estimated that less than one in twenty of wounded soldiers die; that of all soldiers sent into hospital only forty-five in every 1,000 die, inclusive of those who die of disease as well as those who succumb to wounds.

CHOLERA IN PETROGRAD.—The cholera epidemic is decreasing in Petrograd, according to advices to the Swedish legation sent from Russia. For the first four days in October the number of cases in Petrograd was respectively, 84, 118, 90 and 42 against a total of 1,014 during the last five days of September.

2,134 WOUNDED INVALIDED HOME.—The number of sick and wounded landed in the United States from the American Expeditionary Forces for the week ended October 18, is 637. For the previous week 261 were landed. This brings the total for October to date up to 2,134.

RED CROSS URGES ALL NURSES TO REGISTER.—The Boston Metropolitan Chapter of the American Red Cross will undertake the important task of registering all women within the chapter district who are available for nursing in an emergency. The registration is not a pledge of service, but those who will be asked to fill out the questionnaire will include graduate nurses, semi-trained nurses, midwives, practical nurses and graduates of the Red Cross course. The questionnaires finally will be assembled at Washington and the data tabulated. Surgeon General Gorgas has called for 1,500 yeomen between the ages of 35 and 45 for immediate service overseas to act as nurse aids. They must have had instruction in home care of the sick and one month's practical hospital experience. This is a military service and the pay is $30 a month and maintenance. Women accepted for this service can begin their studies in home care of the sick at the Red Cross Chapters and through the Red Cross may obtain the necessary hospital training.

The American Red Cross Tuberculosis Unit for Italy, of which Miss Isabel Hall, public health nurse; Seymour H. Stone, field secretary, and Morgan H. Stafford, assistant manager, all of Boston, are members, has arrived safely in France, and will proceed at once to Italy. The commission will make a survey of public health conditions among the civilian population, particularly as to tuberculosis. The work is to be directed by Dr. William C. White of Pittsburgh, and Dr. R. H. Bishop, Jr., of Cleveland.

COMMISSIONS IN MEDICAL RESERVE CORPS.—Appointments to the Medical Corps are announced by the War Department as follows:

Captain: Dr. Edward A. Tracy, Keene, N. H.

Lieutenant: Dr. Leslie E. McKinley, Newbury, Vt.

WAR RELIEF FUNDS.—On November 2 the totals of the principal New England War Relief Funds reached the following amounts:

Belgian Fund	$713,482.24
French Wounded Fund	425,674.62
French Orphanage Fund	409,728.97
Armenian Syrian Fund	314,374.86
Italian Fund	219,175.96

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending October 26, 1918, the number of deaths reported was 436 against 203 last year, with a rate of 28.99 against 13.71 last year. There were 64 deaths under one year of age against 23 last year.

The number of cases of principal reportable

diseases were: Diphtheria, 23; scarlet fever, 8; measles, 8; whooping cough, 15; typhoid fever, 4; tuberculosis, 55.

Included in the above were the following cases of non-residents: Diphtheria, 6; scarlet fever, 1; tuberculosis, 3.

Total deaths from these diseases were: Diphtheria, 3; measles, 1; whooping cough, 4; tuberculosis, 20.

Included in the above were the following non-residents: Diphtheria, 1; tuberculosis, 1.

Bournewood Hospital.—It is announced that Dr. Henry R. Stedman, after many years of service, has ceased his connection with the Bournewood Hospital, except in an advisory capacity. The management of the hospital has been taken over by Dr. George H. Torney, who has been associated with Dr. Stedman for the past five years in the conduct of the institution.

Hospital Bequests.—The Malden Hospital will receive $5,000 by the will of the late Mary Benson of Brooklyn.

By the will of Miss Amelia Morrill, the Massachusetts Charitable Eye and Ear Infirmary, Children's Hospital and Massachusetts General Hospital will eventually receive part of the residuum of the total amount.

Progress of the Influenza Epidemic.

The number of new cases of influenza in Boston continues to decrease. After being closed since early in the month, the theatres and moving picture houses have reopened. City Commissioner Woodward addressed the following communication to managers of theatres and moving picture houses: "Sneezing and coughing are factors of extreme importance in spreading influenza, and the public has a very definite knowledge with respect to these matters. May I ask, therefore, that proper notices will be printed on programs warning people about coughing and sneezing without the proper use of the handkerchief?"

Influenza is no longer epidemic in the First Naval District. Boston physicians reported only 99 cases. Other cities heard from included Worcester, 272 cases; Fall River, 235; Lawrence, 192 and 11 deaths; Gardner, 152; Springfield, 121 and 5 deaths; Lowell, 104 and 9 deaths; Brockton, 19 new cases and 9 deaths; New Bedford, 430 cases and 47 deaths; Gloucester, 174 cases; Manchester, 123 cases.

In the Army the epidemic is practically stationary. The epidemic is, however, more pronounced in the eastern section of the country than it is west of the Mississippi river. There is a serious epidemic in Oklahoma City, with many cases in other parts of Oklahoma. Influenza cases reported from all camps since the epidemic began now total 279,945, pneumonia cases, 42,675, and deaths, 13,681.

In Brockton patients are being discharged from the field hospitals at the rate of a dozen a day. There were only 5 deaths reported here on October 18.

In New York the shortage of nurses is so marked that Health Commissioner Copeland appealed to business and professional men to volunteer to work in night shifts in the hospitals.

All theatres and motion picture theatres in California were ordered closed on October 18 as a result of the epidemic there. Schools and churches will remain open unless closed by the local authorities.

In Buenos Aires there are 200,000 cases of influenza but no deaths. Reports from Chile indicate that there is an extremely grave epidemic there, with a large percentage of deaths.

Governor McCall paid a visit to the influenza hospital maintained at Waltham by the State Guard and was much impressed with the work of the institution.

In Paris deaths totalling 472 in one week is the extent of the epidemic ravages. This shows an increase of 280 in the number of influenza deaths over the previous week, and the daily number has risen from 400 to 700.

Senator Lewis has asked an additional $10,000,000 to fight the epidemic. This sum is intended to be spent by the health authorities of the different cities and states in coöperation with the National health officials.

Commissioner of Health Robertson has ordered every man, woman and child in Chicago to be vaccinated to prevent the spread of the epidemic. New cases reported on October 19 totalled 1,960 with 402 pneumonia cases. There were 137 deaths from pneumonia and 244 from influenza.

In Waltham the Public Safety Committee met to consider the advisability of the continuation of the Military Hospital.

In Attleboro, after a consultation with the State Department of Health, Dr. Ralph P. Kent, health officer, announced that the ban would continue on theatres and public gatherings another week.

In Quincy the Spanish influenza is waning. Six new cases were reported to the Board of Health. The 18 patients at the Emergency Hospital in the headquarters of the Neighborhood Club are recovering.

In Nashua, N. H., five influenza deaths were reported in the past 24 hours, bringing the total to 205 on October 20.

There is every indication now that the epidemic is disappearing even more rapidly than was expected. Seventy-two deaths, the lowest since September 22, were reported in Boston October 17. The Boston School Committee re-

opened schools. No new influenza cases were reported from any of the army posts or schools of Greater Boston on October 16. Dr. Woodward is skeptical in advising the use of a vaccine until such perfection in the preparation has been made that there exists no more doubt as to its efficiency.

The vaccine perfected by Dr. Warren M. Stone, city bacteriologist of Schenectady, N. Y., has proved such a success in combating the influenza that its use will be made more general. About 4,000 persons have been inoculated to date and less than one per cent. have developed the disease, according to figures made public by the health department. Public inoculations have been arranged for and several of the larger plants have taken steps to apply the preventative among their employees.

Dr. William C. Woodward is sending warnings broadcast against spitting and sneezing. He believes that the public can do much in helping to wipe out this disease.

Lawrence reported 78 new cases and five deaths. At the Emergency Hospital there are 120 patients. There were no deaths.

Quincy reports that it is virtually free from influenza. It is expected that the Emergency Hospital in that city will be closed soon.

Among the places reporting were: Fall River, 128 cases; New Bedford, 201 cases, 8 deaths; Plymouth, 18 cases; Taunton, 47 cases; Brookline, 10 cases; Cambridge, 31 cases, 6 deaths; Weymouth, 10 cases; Danvers, 10; Haverhill, 76; Lynn, 49 cases, 10 deaths; Malden, 11 cases; Lawrence, 78 cases, 1 death; Lowell, 104 cases, 9 deaths; Somerville, 21 cases; Waltham, 25 cases; Newton, 19 cases; Southbridge 75 cases; Uxbridge, 24 cases; Worcester, 276 cases; Athol, 56 cases; Clinton, 13 cases, 2 deaths; Fitchburg, 28 cases; Conway, 28 cases; East Hampton, 113 cases (several days), 1 death; Holyoke, 101 cases; Ludlow 28 cases; Northampton, 22 cases, 4 deaths; Springfield, 324 cases, 33 deaths; Westfield, 79 cases; Dalton, 21 cases; Great Barrington, 360 cases (several days); Greenfield, 16 cases; North Adams, 85 cases; Pittsfield, 115 cases; Sheffield, 24 cases (several days).

In Washington, while the epidemic continues to spread among the civilian population generally, a continued decrease in the number of new cases at army camps led army medical officials to believe that the peak of the epidemic had been passed among soldiers. New cases of influenza among the troops reported during the 24 hours ending at noon on October 17 totalled 5,668 against 6,498 of the day before. It is estimated that there are now about 200,000 cases in Virginia. In California 6,500 cases had been reported up to October 14.

Reports to the public health service, recently, from 35 states showed that Spanish influenza still is on the increase in most parts of the country. It is still more pronounced in the eastern section of the country than in the regions west of the Mississippi. Up to October 16 New Jersey had reported 107,839 cases, with 2,232 deaths, while in New York City 4,733 cases of influenza, with 336 deaths and 646 cases of pneumonia, with 287 deaths, were reported. Deaths in Pennsylvania until October 1 were reported at 10,046.

Westfield is apparently the only place in the Connecticut Valley where the epidemic shows an increase.

In Chicago the children are barred from the streets. There has been a general vaccination in this city of employees and other civilians. Deaths from the epidemic reported that there were 375 new cases, making a total of 2,020 cases in Chicago up to date.

In the Navy the Aviation School at Tech had three of the new cases.

The epidemic of influenza and pneumonia will be virtually wiped out in Boston by November 1, according to health officials. Massachusetts resumed its campaign against influenza and pneumonia confident that the epidemic would soon be under control. Dr. William C. Woodward, Commissioner of Health, sent a letter to Police Commissioner O'Meara congratulating him on the coöperation of the police department, and at the same time requesting him that the police be vigilant in the detection and arrest of persons found spitting in public places. Placards will be distributed throughout the city warning offenders in this respect, and also emphasizing the importance of not sneezing and coughing in public places. All theatres and picture houses have displayed these warnings on the screens and programs as a warning to their patrons.

Fifty mental cases growing out of the influenza attacks have been admitted to the Boston Psychopathic Hospital, and several were sent out to the Boston State Hospital for the Insane at Mattapan.

The latest reports for Boston show 33 deaths from influenza and three from pneumonia.

The Navy situation is greatly improved. In army camps, 2,772 new cases were reported, making a decrease of one from the report of the day before. Pneumonia cases decreased from 742 to 699 and deaths were 307 against 327 of the day before. The total of influenza cases reported now is 296,275; pneumonia cases, 48,327, and deaths, 16,174.

Connecticut reported a general decline in the number of cases but that the disease still is active in the larger cities. Over the southern and eastern section of the country, a general improvement in the conditions is shown. New York reported 759 deaths on October 24.

Surgeon General Brooks has recalled some of the nurses who have been working at the Lawrence base hospital for influenza and pneumonia patients, and has issued an order that no more patients will be received. There were

78 new patients and five deaths on October 24 at Lawrence. At the Emergency Hospital there are now 120 patients.

The following is a list of the latest reports from adjacent municipalities:

Fall River, 49 cases; Taunton, 59; Bridgewater, 11; Brockton, 19 and 6 deaths; Brookline, 1 case; Cambridge, 3; Easton, 9; Medfield, 25 and 4 deaths; Danvers, 25 cases; Everett, 10; Haverhill, 37; Lynn, 49; Salem, 4; Peabody, 11; Wakefield, 29; Somerville, 14; Waltham, 16; Woburn, 9, Brookfield, 17; Douglas, 14; Grafton, 88; Marlboro, 16 cases, 1 death; Southbridge, 31 cases; Sturbridge 31 cases (several days); Worcester, 91; Athol, 22; Barre, 50; Fitchburg, 15 cases and 3 deaths; Gardner, 56 cases; Leominster, 36; Winchendon, 18; Chicopee, 34; Ludlow, 28; Hatfield, 26; Northampton, 4; Ware, 176 and 29 deaths (for several days); Northampton, 4 cases, 2 deaths; Westfield, 27 cases; Great Barrington, 50; Greenfield, 16; North Adams, 31; Pittsfield, 41.

October 26th reports of the progress of the Spanish influenza epidemic show a new low mark in the number of new cases and deaths. Boston is now slowly but surely returning to its normal condition before the scourge hit it so hard. It was reported that during the highest period of mortality of the epidemic, as many as 3,074 cases were being treated at one time, while at the present time there are only 1,601 cases under treatment. Throughout the State there is a steady decrease in reports. State reports reveal only 2,840 new cases and 110 deaths in 104 communities. The Concord schools will, however, remain closed for another week.

Portland, Me., has improved to such an extent that the Board of Health at a meeting removed the ban on schools and public places. There has been a total of 3,212 cases of influenza since September 24, with 171 deaths.

In New York there is the greatest increase, with 5,390 new cases. Officials of the Interborough Rapid Transit Company said that because of the epidemic scare there were approximately 400,000 less passengers a day than a year ago. Thousands are walking to and from work. The school teachers who are stricken will receive their salary throughout their illness.

Washington, D. C., shows slight improvement in the influenza situation.

Successful inoculations of 10,000 soldiers at Camp Dix against pneumonia following influenza caused camp authorities to offer treatment to 10,000 more.

The situation in Chicago and the northern section of Illinois was declared improving, although the disease is spreading in other parts of the State.

Reports from 104 cities and towns show 2,840 new cases of influenza and 110 deaths. These reports include 66 from Fall River, 196 cases and 16 deaths from New Bedford; Taunton, 93 cases, of which 65 are from the State hospital; Boston, 105 cases and 28 deaths; Brockton, 29 cases; Brookline, 17; Cambridge, 27; North Attleboro, 26; Beverly, 30; Chelsea, 26; Haverhill, 41; Lynn, 37; Malden, 16; Salem, 20; Lawrence, 60 cases and 4 deaths; Lowell, 136 cases and 5 deaths; Somerville, 33 cases and 15 deaths (for five days); Framingham, 42 cases; Southbridge, 29 cases; Worcester, 152 cases; Athol, 26; Fitchburg, 97 cases and 10 deaths in two days; Gardner, 60; Hardwick, 29; Winchendon, 13; Chicopee, 42; Holyoke, 149 (for two days); Ludlow, 27; Northampton, 24 cases and 1 death; Springfield, 149 cases and 6 deaths; Westfield, 46 cases; Great Barrington, 30 cases; North Adams, 66; Pittsfield, 13; Sheffield, 20.

Boston schools and theatres have reopened, and the city is itself again. Up to October 28 a total of 4,000 persons in Boston have died as a result of the epidemic in six weeks. Although there is a gradual decline in the number of deaths, the epidemic is not yet completely exterminated. The latest reports show fourteen deaths from influenza and five from pneumonia. There are 14 victims in the morgue of the City Hospital unidentified. Several are said to have been business girls employed in Boston, but who had no relatives in the city. The emergency health station in the police headquarters has been abolished.

Obituaries.

FREDERICK WATERMAN COWLES, M.D.

Frederick Waterman Cowles, M.D., fifty-two years old, formerly a physician in Boston and one of the students in the once-famous Springfield Collegiate Institute and a graduate in 1887 of the old school in Springfield, died in his home in West Brookfield, of bronchial pneumonia, October 15, 1918. Dr. Cowles was born in Hartford, Conn., on May 13, 1866, and received his early education there, going to West Brookfield to live when he was fourteen years of age. From there his father, Loring S. Cowles, sent him to Springfield to study. Following his graduation there, he studied a year in Boston, in the College of Physicians and Surgeons and then entered Dartmouth Medical School, from which he was graduated in 1893. Then for a time he practised in Boston and went to West Brookfield to take up his profession twenty-two years ago. He had held many offices of trust

in that town. At the time of his death Dr. Cowles was awaiting a commission in the Medical Corps of the Army.

HOWARD BIGELOW JACKSON, M.D.

HOWARD BIGELOW JACKSON, M.D., died at Fort Oglethorpe, Georgia, October 13, 1918 of pneumonia, following influenza. Dr. Jackson was born at Peterboro, N. H., September 27, 1874. He was graduated from Harvard College *cum laude* in 1897 and from Harvard Medical School four years later, then serving in succession as house officer at Boston City Hospital, assistant physician at the Massachusetts Reformatory at Concord, and resident physician at the Long Island almshouse, Boston Harbor. In 1903 he settled in Melrose and joined the Massachusetts Medical Society and the American Medical Association. When Dr. A. E. Small entered the Medical Reserve Corps of the Army Dr. Jackson acted as secretary of the Middlesex East District Medical Society, and this spring he himself accepted a captain's commission in the Medical Corps.

He is survived by his widow and four children.

JOSEPH KIDD, M.D.

DR. JOSEPH KIDD died at Hastings, England, on August 20, 1918, after a few days' illness, in his ninety-fifth year.

He was born in Limerick in 1824, the seventeenth of eighteen children. He received a good general and classical education at a Quaker school in Limerick, where he acquired a love for classical authors that he never lost throughout his long life. In 1841 he became a pupil of Dr. O'Shaughnessy in Limerick. The next year he became assistant to Dr. Walter in Dublin, with whom he obtained experience in surgery, dispensary, and visiting practice, the value of which he always gratefully acknowledged. For six months he studied at the Rotunda Hospital in Dublin, where he witnessed the wonderful reduction in mortality which followed the bold action of the then Master, who secured free ventilation of the wards by the simple process of cutting off the tops of the sash windows so that an open space of two feet was left above each window. He had been attracted by the principles of homeopathy, and when a vacancy occurred in the New Homeopathic Hospital in Hanover Square, he was elected house surgeon to the hospital, where he worked under Dr. Curie, father of Professor Curie, whose name, with that of his wife, is commemorated in the discovery of radium.

Shortly after the famine in Ireland, in 1847, he returned to England and resumed practice in London. In 1853 he graduated M.D. of King's College, Aberdeen, where he obtained a broader outlook with referenc to homeopathy. In later years he disclaimed the title of homeopathist. His success in practice and the extraordinary influence he exerted on his patients, both high and low, were entirely due to his personal qualities. For many years he made a large income, but no one cared less for money, and he gave freely to those who needed help. He retained his mental and bodily powers far beyond the ordinary limits of age, and retired from practice only when he had reached his ninetieth year. Four of his sons and one daughter have followed their father's profession.

RALPH E. STEVENS, M.D.

DR. RALPH E. STEVENS of Marlborough, Mass., died suddenly on September 18, of uraemic poisoning. Services took place at the Unitarian church at 3 o'clock, when a large attendance of friends from all walks of life paid their last tribute to the loving memory of the physician. He was born in Marlborough forty-eight years ago and was the son of Charles E. and Albertina H. Stevens. He was graduated from Harvard Medical School in 1897, after which he spent a year and a half in the Boston City Hospital. He took up residence again in Marlborough, where he remained for the last twenty years. He was chairman of the Board of Health for the last fifteen years, and sacrificed much of his practice for the health of the community. He was a member of the Harvard Medical School Alumni, the City Hospital Alumni, the Massachusetts Medical Society and the American Medical Society. Rev. Ralph Conner, in speaking words of consolation, referred to him as a noble exemplar of the medical profession and an earnest devotee to charity.

Miscellany.

PREVALENCE OF SPANISH INFLUENZA THROUGHOUT THE UNITED STATES.

Recent issues of the United States Public Health Reports (Sept. 27 and Oct. 4) indicate as follows the prevalence of epidemic Spanish influenza throughout the United States:

Alabama.—An extensive epidemic is reported from Florence and vicinity.

Arkansas.—There is an outbreak in Lonoke County.

California.—Cases have been reported from a number of places in the State.

Connecticut.—On September 30 it was estimated that 9000 cases occurred in the State.

District of Columbia.—From September 21 to 30, inclusive, 177 cases were reported. On October 1 there were 162 cases reported.

Florida.—Epidemics have been reported from Key West and Pensacola.

Georgia.—Cases have been reported from a number of places in the State.

Idaho.—On September 30 15 cases were reported in Canyon County.

Illinois.—October 1 the State health officer telegraphed: "Situation in communities adjacent to Great Lakes Naval Station shows tendency to improve. Disease spreading along main traveled routes." On October 1, 374 cases were notified in Chicago, and there were 14 deaths from influenza and 45 deaths from pneumonia in Chicago on that day.

Indiana.—An epidemic at Evansville was reported September 25.

Kansas.—Cases have been reported from a number of places in the State.

Kentucky.—The number of cases at Louisville is said to be decreasing.

Louisiana.—On September 14, 1918, the steamship *Harold Walker* arrived at New Orleans Quarantine Station from Tampico, Mexico. The vessel sailed from Boston September 1. Three deaths had occurred on board the ship since she left Boston, and there had been a total of 15 cases of illness. Six members of the crew were ill on arrival. They showed considerable elevation of temperature, ranging from 37.6° to 39.6° C. They all complained of pain in the head, cough, pains in the chest, back, and extremities.

Maryland.—During the three days ended September 30, 77 cases were notified in Baltimore. Cases have been reported from many places in the State.

Massachusetts.—On October 1, it was estimated that there were at least 75,000 cases in the State, exclusive of cases in the cantonments. During the week ended September 30, 788 deaths from influenza and 196 deaths from pneumonia were registered in Boston.

Minnesota.—The disease has been reported from Wells Village, Faribault County; North Branch, Chisago County; and Minneapolis.

Mississippi.—Epidemics have been reported from a number of places in the State.

Montana.—The disease is epidemic in Sheridan and Fergus Counties. Cases have been reported from other counties.

Nebraska.—The disease was reported prevalent throughout the State on October 1.

New Hampshire.—A number of cases have been reported in Portsmouth and vicinity.

New Jersey.—The State health officer telegraphed September 23 that influenza was unusually prevalent.

New York.—A report dated September 21 stated that 61 cases had been reported in New York City.

North Carolina.—Cases have been reported from Raleigh. Four hundred cases were reported from Wilmington. All the hospitals are crowded.

Pennsylvania.—Comparatively few cases have been reported among the civil population. A few cases have occurred at Hog Island, and some are said to have been found in Pittsburgh.

Rhode Island.—The disease has appeared at Providence, East Providence, Newport, and Warwick.

South Carolina.—One hundred cases have been reported at Newberry.

South Dakota.—A few scattered cases were reported September 23.

Tennessee.—Two suspicious cases were reported at Memphis.

Texas.—Thirty-five counties report influenza, from 1 case to 2000 cases per county.

Vermont.—The disease is present in all parts of the State, the largest epidemics being at Middlebury, St. Johnsbury, Lydonville, St. Albans, Montpelier, Barre, Randolph, and Northfield.

Virginia.—The disease is epidemic in many parts of the State.

West Virginia.—Outbreaks have occurred at Hinton, Bluefield, Martinsburg, Charles Town, and Nitro.

The following table indicates the number of deaths from the influenza epidemic in the leading cities:

City	Deaths from Influenza during Week Ending					Deaths from Pneumonia (all forms) during Week Ending				
	September			October		September			October	
	14	21	28	5	12	14	21	28	5	12
Total	19	172	776	2548	6122	297	388	774	1821	4409
Albany	..	..	..	..	34	2	0	2	2	11
Atlanta	..	..	..	..	5	7	*	4	7	25
Baltimore	..	..	..	30	192	7	6	19	87	371
Birmingham	..	..	..	..	..	3	*	2	12	30
Boston	19	172	600	991	860	27	93	175	225	177
Buffalo	..	..	..	7	82	8	11	16	41	98
Cambridge	..	..	82	113	100	7	4	23	27	15
Chicago	..	..	17	171	571	15	24	74	246	476
Cincinnati	..	..	..	3	47	5	4	6	15	20
Cleveland	..	..	..	3	18	5	8	10	15	22
Columbus	..	..	..	..	15	1	4	6	10	13
Dayton	..	..	..	..	20	2	1	2	5	11
Denver	..	..	..	..	..	3	3	8	19	*
Fall River	..	..	..	86	192	0	5	6	11	*
Grand Rapids	..	..	..	..	..	2	*	1	3	*
Indianapolis	..	..	..	..	..	3	6	10	24	*
Jersey City	..	..	..	16	87	2	6	21	†	*
Kansas City, Mo.	..	..	..	26	75	5	*	10	11	*
Los Angeles	..	..	..	..	..	9	*	2	14	*
Louisville	..	..	..	..	..	3	9	4	14	*
Lowell	..	..	16	29	37	1	8	16	64	104
Memphis	..	..	..	..	13	*	*	*	*	67
Milwaukee	..	..	..	..	15	4	5	13	15	54
Minneapolis	..	..	..	..	37	2	*	11	13	*
Nashville	..	..	..	..	..	2	*	3	5	29
Newark	..	..	..	31	119	*	*	*	*	70
New Haven	..	..	11	30	68	0	2	4	6	*
New Orleans	..	..	..	12	..	5	*	3	17	*
New York	..	..	..	298	979	74	98	145	434	1642
Oakland	..	..	..	..	..	4	0	2	3	*
Omaha	..	..	..	..	..	1	*	2	7	*
Philadelphia	..	..	..	399	1097	20	32	76	307	938
Pittsburg	..	..	..	..	..	12	17	*	*	*
Portland	..	..	..	..	..	4	*	3	3	*
Providence	..	..	..	61	125	4	10	20	37	57
Richmond	..	..	..	..	..	4	2	3	*	*
Rochester	..	..	..	..	14	1	1	7	6	22
St. Louis	..	..	..	..	40	12	13	20	25	46
St. Paul	..	..	..	..	31	3	*	3	1	*
San Francisco	..	..	..	..	..	6	14	15	15	*
Seattle	..	..	..	..	54	4	2	4	*	*
Spokane	..	..	..	..	..	2	*	1	1	*
Syracuse	..	..	38	125	216	0	*	†	14	3
Toledo	..	..	..	..	2	2	0	5	3	7
Washington, D. C.	..	..	12	116	387	10	*	17	57	101
Worcester	..	..	..	..	..	4	*	*	*	*

* Not reported. *
† Included with deaths from influenza.

APPOINTMENTS.

The Massachusetts State Department of Health announces the following appointments:

Dr. J. J. Carroll of Holyoke, Acting Assistant Surgeon, U. S. Public Health Service, to be Chief of the Subdivision of Venereal Diseases, State Department of Health of Massachusetts. Lieut. Carroll succeeds Major Alec Nicol Thomson, who is now in charge of the work of correlating the efforts directed against venereal disease in the New England States in behalf both of the Army and of the U. S. Public Health Service.

Dr. Lily Owen Burbank of East Bridgwater to be Director of Educational Work for Women, of the Subdivision of Venereal Diseases.

SOCIETY NOTICE.

Massachusetts Therapeutic Massage Association. —The next meeting will be held at the Hotel Brunswick, at 7.45 P.M., Tuesday, Nov. 12, 1918.

Dr. Edward M. Hartwell will tell us about "Massage in Germany"

Dr. Walter B. Swift will address the Society on "Recent Results in the Treatment of Paralysis Agitans with Movement Exercises."

Douglas Graham, M.D., *President.*
Miss Agnes J. Kerr, *Secretary.*

RECENT DEATHS.

Dr. Eugene Hull died, on October 23, 1918, at an Army camp at Little Rock, Ark. He received a commission in the medical service last summer, and two months ago was ordered into the service. Particulars of his death are not known here.

Dr. Francis E. Robinson died on Oct. 19, 1918, after a year's illness, at his home in West Newton. He was born in Waterloo, N. Y., 73 years ago. He was educated at Syracuse University and at the University of Michigan, later taking up medical practice in Brooklyn and remaining there until his removal to West Newton. For 50 years he was a member of the American Institute of Homeopathy.